



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604**

**SUBJECT:** CLEAN AIR ACT INSPECTION REPORT  
Prairie View Landfill, Wilmington, Illinois

**FROM:** Karina Kuc, Environmental Engineer  
AECAB (IL/IN)

**THRU:** Nathan Frank, Section Chief  
AECAB (IL/IN)

**TO:** File

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**BASIC INFORMATION**

**Facility Name:** Prairie View Landfill

**Facility Location:** 29755 S. Prairie View Dr. Wilmington, IL 60481

**Date of Inspection:** Virtual Inspection: March 12, 2021  
On Site Inspection: June 11, 2021  
Closing Conference: June 11, 2021

**EPA Inspector(s):**

1. Karina Kuc, Environmental Engineer
2. Vicky Mei, Environmental Engineer
3. Emma Leeds, Environmental Engineer
4. Sasha Letuchy, Environmental Engineer

**Other Attendees:**

1. Ian Johnson, Site Engineer – Waste Management
2. Pat Brahmer, Monitoring Technician – Environmental Management and Technologies, Inc.

**Contact Email Address:** [ijohnson@wm.com](mailto:ijohnson@wm.com)

**Purpose of Inspection:** Clean Air Act compliance

**Facility Type:** Municipal solid waste (MSW) landfill

**Regulations Central to Inspection:** New Source Performance Standards Subparts WWW and JJJJ; National Emission Standards for Hazardous Air Pollutants Subpart AAAAA

**Start Time:** 10:00 AM

**End Time:** 2:30 PM

**Inspection Type:**

- ☐ Unannounced Inspection
- ☒ Announced Inspection

**OPENING CONFERENCE**

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☐ Provided Small Business Resource Information Sheet
- ☒ Small Business Resource Information Sheet not provided. Reason: Not a small business
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Waste Management representatives.

**Process Description:** EPA conducted a virtual inspection on March 12, 2021. The on-site opening conference was limited to a discussion of the Surface Emission Monitoring (SEM) survey plan for the day. Prairie View Landfill (the landfill) is a municipal solid waste landfill that opened in 2004 and consists of approximately 58 acres under final cover, 78 acres under intermediate cover and 10 active acres.

**Staff Interview:** The facility conducts surface emissions monitoring (SEM) surveys quarterly by walking the landfill. They stated that they deviate from the serpentine path to monitor distressed vegetation and will start monitoring wells and penetrations next quarter in accordance with the new regulations.

**TOUR INFORMATION**

**EPA Tour of the Facility:** Yes

**Data Collected and Observations:** EPA conducted a limited SEM survey of the facility. A total of 43 points were found to have surface methane concentrations in excess of 500 parts per million (ppm). Distressed vegetation and exposed waste were observed.

**Photos and/or Videos:** were taken during the inspection.

**Field Measurements:** were taken during this inspection.

## **RECORDS REVIEW**

Requested and reviewed prior to inspection:

- Control device performance testing
- Control device monitoring data
- Cover integrity inspections
- Gas well data
- Gas well installation dates
- GCCS plan and current drawings
- Permit Applications
- SEM data
- Semi-annual reports
- Waste composition

## **CLOSING CONFERENCE**

☒ Provided U.S. EPA point of contact to the facility

**Requested documents:** Documentation of exceedance correction and re-monitoring for SEM hits detected by EPA

**Compliance Assistance:** EPA answered questions about SEM procedure and provided recommendations on more effective methods to address LFG leaks at penetrations

## **DIGITAL SIGNATURES**

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Karina Kuc, Report Author

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Nathan Frank, Section Chief (IL/IN)

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**APPENDICES AND ATTACHMENTS**

Appendix A: Digital Image Log

Appendix B: Field Measurement Data

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**APPENDIX A: DIGITAL IMAGE LOG**

1. Inspector Name: Emma Leeds		2. Archival Record Location: ERC - Enf_PrairieViewLandfill_IL_21	
Image #	File Name	Date and Time (CDT)	Description of Image
1	IMG_1151.JPG	2021:06:11 10:39:23	Erosion rill
2	IMG_1152.JPG	2021:06:11 10:46:44	Exposed waste
3	IMG_1153.JPG	2021:06:11 10:59:53	Leak detected
4	IMG_1154.JPG	2021:06:11 11:01:22	Exposed waste
5	IMG_1155.JPG	2021:06:11 11:07:12	Exposed waste
6	IMG_1156.JPG	2021:06:11 11:09:15	Exposed waste surrounding well
7	IMG_1157.JPG	2021:06:11 11:17:39	Exposed waste
8	IMG_1158.JPG	2021:06:11 01:32:37	Leak detected (Well 37)

Note: Date and Time indicated on the photo is incorrect. The photos were taken on 6/11/2021, not 6/10/2021. The time the photos were taken is actually 12 hours earlier (for example, time on photo 1151 is 22:39, but the actual time of the photo was 10:39).

1. Inspector Name: Vicky Mei		2. Archival Record Location: ERC - Enf_PrairieViewLandfill_IL_21	
Image #	File Name	Date and Time (CDT)	Description of Image
1	IMG_5435.JPG	2021:06:11 02:05	Two structurally compromised wells on top of landfill
2	IMG_5436.JPG	2021:06:11 02:05	Two structurally compromised wells on top of landfill

1. Inspector Name: Karina Kuc		2. Archival Record Location: ERC - Enf_PrairieViewLandfill_IL_21	
Image #	File Name	Date and Time (CDT)	Description of Image
1	IMG_6659.JPG	2021:06:11 10:46:19	Leak detected (Well 46)
2	IMG_6660.JPG	2021:06:11 10:58:15	Leak detected (Well 58)
3	IMG_6661.JPG	2021:06:11 11:03:04	Leak detected and exposed waste (Well 88)
4	IMG_6662.JPG	2021:06:11 11:15:40	Leak detected (Well 89)
5	IMG_6663.JPG	2021:06:11 11:25:23	Leak detected (Well 93)
6	IMG_6664.JPG	2021:06:11 11:29:03	Leak detected (Well 55)
7	IMG_6665.JPG	2021:06:11 11:30:55	Leak detected (Well 95)
8	IMG_6666.JPG	2021:06:11 11:34:41	Exposed waste
9	IMG_6668.JPG	2021:06:11 13:27:09	Leak detected (Well 37)
10	IMG_6669.JPG	2021:06:11 13:31:52	Leak detected (Well 54)
11	IMG_6670.JPG	2021:06:11 13:34:44	Leak detected (Well 53)
12	IMG_6672.JPG	2021:06:11 13:41:44	Leak detected (10 feet north of Well 64)
13	IMG_6673.JPG	2021:06:11 13:57:22	Leak detected in erosion rill (west of Well 60R)
14	IMG_6674.JPG	2021:06:11 14:00:19	Leak detected in erosion rill (west of Well 60R)

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**APPENDIX B: FIELD MEASUREMENT DATA**

**Exceedances detected by EPA**

<b>Exceed- ance</b>	<b>Latitude, Longitude</b>	<b>Location Description</b>	<b>Reading 1 Value</b>	<b>Reading 1 Inst</b>	<b>Reading 2 Value</b>	<b>Reading 2 Inst</b>
1	41.35053, -88.10565	W-75	2000	KK	781	PB
2	41.34947, -88.10657	W-46	1%	KK	2.13%	PB
3	41.34863, -88.10699	Between inner and outer casing of W-58	800	KK	3040	PB
4	41.34895, -88.10655	W-88	1500	KK	1.12%	PB
5	41.34863, -88.10614	W-89	1100	KK	1900	SL
6	41.34796, -88.10701	W-57	1%	KK	5%	SL
7	41.34761, -88.10642	W-90	1%	KK	--	SL
8	41.34715, -88.10666	W-93	3%	KK	3%	SL
9	41.34639, -88.10684	W-55	2900	KK	1.60%	SL
10	not collected	W-95	600	KK	630	SL
11	41.3443, -88.10733	W-37	1%	KK	2000	SL
12	41.34499, -88.10743	W-54	600	KK	1000	SL
13	41.34566, -88.1072	W-53	4000	KK	2930	SL
14	41.34604, -88.10623	W-64	5000	KK	--	SL
15	41.340606, - 88.10624	10 ft N of W-64	1000	KK	700	SL
16	41.34515, -88.10585	W-59R	1000	KK	1000	SL
17	41.34516, -88.10585	90 ft W of 60R	1000	KK	1040	SL
18	41.34514, -88.10579	80 ft W of 60R	800	KK	1707	SL
19	41.34513, -88.10566	40 ft W of 60R	800	KK	801	SL
20	41.34866, -88.1059	W-87	1700	VM	5000	SL
21	not collected	Near W-87	1200	SL	550	KK
22	41.3479, -88.10518	W-82	2000	VM	7.90%	PB
23	41.34735, -88.1052	W-83	2.3%	VM	8.10%	PB
24	41.34675, -88.1052	W-84	3000	VM	1871	PB
25	41.34625, -88.10564	W-96	9000	VM	4.01%	PB
26	41.34452, -88.10677	200 ft upslope N of haul road	1287	VM	1115	PB
27	41.3446, -88.10668	250 ft upslope N of haul road - dried lechate seep	1616	VM	837	PB
28	41.34463, -88.10661	300 ft upslope N of haul road	1428	VM	1904	PB
29	41.34483, -88.106	500 ft upslope N of haul road	911	VM	1042	PB
30	41.34495, -88.10579	300 ft SW of W-60R	8199	VM	5860	PB

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Exceed- ance	Latitude, Longitude	Location Description	Reading 1 Value	Reading 1 Inst	Reading 2 Value	Reading 2 Inst
31	41.34512, -88.10554	W-60R	3840	VM	4111	PB
32	41.34559, -88.10529	W-65	3446	VM	3084	PB
33	41.3458, -88.10514	30 ft NE of W-65	611	VM	841	PB
34	41.34589, -88.10512	100 ft N of W-65	677	VM	761	PB
35	41.34627, -88.10475	W-113	2.12%	VM	9870	PB
36	41.34684, -88.10456	W-112	1818	VM	1221	PB
37	41.34729, -88.10503	50 ft E of W-83	1167	VM	1860	PB
38	41.35083, -88.10594	Trench a few feet deep along the north slope	1600	VM	583	PB
39	41.35053, -88.10604	Further along same trench as previous exceedance	720	SL	2860	PB
40	41.35028, -88.10619	Gas probe L74	7000	VM	1012	SL
41	41.34986, -88.10599	Trench along dirt road	5000	VM	1231	SL
42	41.34965, -88.10593	South of W-85	829	SL	580	VM
43	41.34879, -88.10593	Near W-87	1358	SL	997	VM

### Calibration Data and Instrument Information

Vicky Mei used A56575 until 1:20 PM, Emma Leeds (EL) took over for the remainder of the day.

Sasha Letuchy (SL) used SL1555 for the duration of the survey.

Karina Kuc (KK) used A56584 for the duration of the survey.

Pat Brahmer (PB) of EMT used an instrument for the duration of the survey.

Calibration gases:

- Air, zero grade, THC < 1 ppm, expiration May 2026
- Methane 500 ppm, expiration May 11, 2025
- Methane 1960 ppm, expiration May 11, 2025
- Methane 10,000 ppm, expiration May 11, 2025

TVA calibration at 8:45 AM

	TVA #A56575		TVA #A56584		TVA #SL1555	
	Methane (ppm)	Response (s)	Methane (ppm)	Response (s)	Methane (ppm)	Response (s)
1	502	5.1	488	4.6	484	4.8
2	498	3.8	490	3.8	482	4.3
3	499	4.4	489	3.8	498	4.5

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Bump check with 500 ppm calibration gas at 4:30 PM.

TVA #A56575	TVA #A56584	TVA #SL1555
Methane Reading (ppm)		
501	510	550

Using TVA #A56575, the upwind reading was taken at 10:30 AM near leachate well L-304. The downwind location was taken at 2:15 PM near the office parking lot.

Location	Methane Reading (ppm)
upwind	-0.2
downwind	-1.8